

ABSTRACT OF THE INVENTION

5 A curved mirrored surface is used to collect radiation scattered by a sample surface and originating from a normal illumination beam and an oblique illumination beam. The collected radiation is focused to a detector. Scattered radiation originating from the normal and oblique illumination beams may be distinguished by employing radiation at two different wavelengths, by intentionally introducing an offset
10 between the spots illuminated by the two beams or by switching the normal and oblique illumination beams on and off alternately. Beam position error caused by change in sample height may be corrected by detecting specular reflection of an oblique illumination beam and
15 changing the direction of illumination in response thereto. Butterfly-shaped spatial filters may be used in conjunction with curved mirror radiation collectors to restrict detection to certain azimuthal angles.